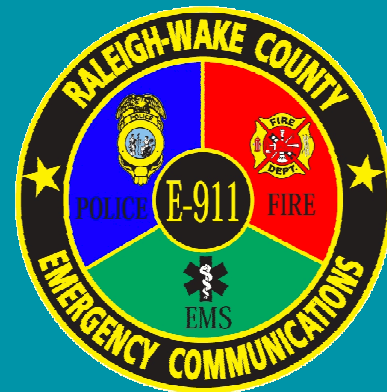


Raleigh—Wake Emergency Communications



2008 Annual Report

Introduction from the Director



Raleigh-Wake Emergency Communications
PO Box 590
Raleigh, NC 27602

Mr. Allen, Mayor Meeker, Members of Council, and WECO Board Members:

It is with great pleasure that I present to you the 2008 Annual Report of the Raleigh-Wake Emergency Communications Center and the City of Raleigh Communications Electronics Maintenance Shop. As is normally the case, the past year has been extremely busy for our organization.

While initiatives aimed at reducing non-emergency calls have shown great promise, the number of 9-1-1 calls continues to increase. This is compounded by corresponding increases in wireless, Emergency Medical Dispatch (EMD), and non-English speaking language calls; all of which take additional time to process.

I am also extremely pleased to report that despite these challenges, the number of valid complaints dropped 50% from the previous years total, with a rate of only 1.81 per 100,000 calls answered.

During late 2008, Emergency Communications upgraded our telephone system to Voice over Internet Protocol. Separate from the citywide project, this step is designed to move us closer to incorporating features of "Next Generation 9-1-1" service.

Finally, significant work went towards maintaining Raleigh's effort of sustainability. The use of virtual servers reduced our electrical demand, while increased reliance on Automatic Vehicle Location softened the carbon footprint of first responders by cutting down on distance traveled to emergencies.

Respectfully submitted,

Barry Furey, Director

Table of Contents

2008

Raleigh-Wake Emergency Communications Annual Report

Introduction	Page 2
Table of Contents	Page 3
Administrative Staff	Page 4
Organizational Chart	Page 5
User Agencies	Page 6
Dispatch and Call Taking Statistics	Page 7
Accreditation	Page 10
I Knew What To Do	Page 11
The Year In Pictures	Page 12
Telecommunicator Emergency Response	Page 15
Recruiting, Training and Public Education	Page 16
Personnel	Page 17
Honors and Awards	Page 19
Quality Assurance and Feedback Analysis	Page 21
Technical Services	Page 23
Giving Back to the Community	Page 25
Environmental Initiatives	Page 26
Clarence E. Lightner Public Safety Center	Page 27
Quick Reference Fact Sheet	Page 28



Special thanks is given to Mike Legeros and Lee Wilson for their photographs which are used throughout this document.

2008

Administrative Staff

Barry Furey, Director

Walt Fuller, ENP*, Deputy Director Operations

Kelly Palmer, ENP, Deputy Director Technology & Staff Services

Richard Batchelor, ENP, Accreditation Manager/Configuration

Judy Capparelli, ENP, EMD Quality Improvement/Supervisor

Craig Schulz, ENP, Systems Manager

Bill Eagan, GIS Database Manager

Bob Feagan, 800MHz Technician

Dustin Winkler, Systems Administrator

Matt Boyd, Systems Administrator

Glenn Lamb, Systems Administrator

Bill Passerino, Communications and Electronics Maintenance Supervisor

Angie Schulz, ENP, Training Supervisor

Amanda Davis, Training Coordinator

John Franks, ENP, Training Coordinator

Bob Leap, Training Coordinator

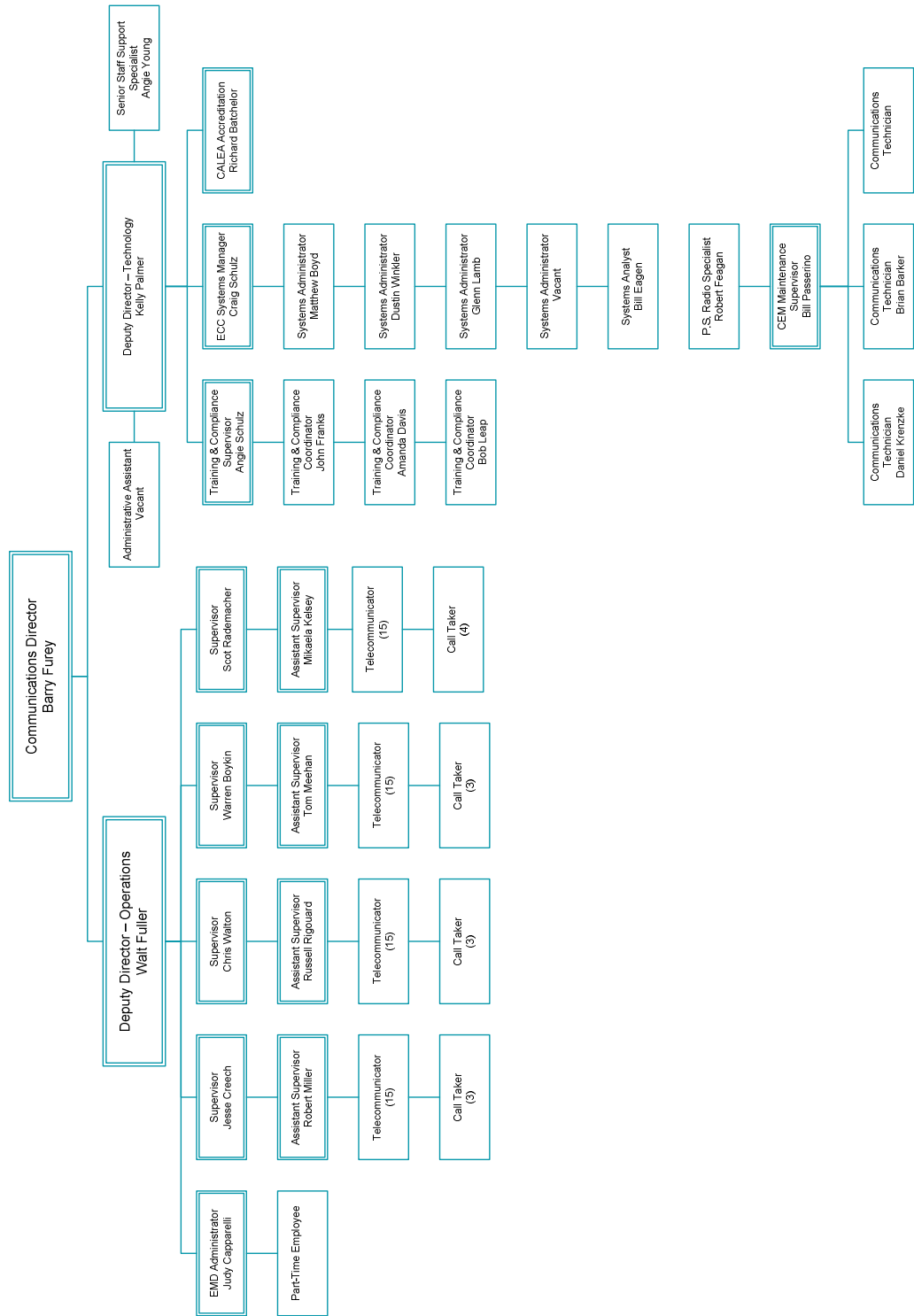
Angie Young, Sr. Staff Support Specialist

**ENP signifies recognition as an Emergency Number Professional, a knowledge-based achievement awarded by the National Emergency Number Association.*



Raleigh-Wake Emergency Communications Organizational Chart

Raleigh – Wake Emergency Communications Organization



2008

Raleigh-Wake Emergency Communications

Our User Agencies

Apex EMS	Apex Fire
Bay Leaf Fire	Cary EMS
City-County Bureau of Identification	Durham Highway Fire
Eastern Wake EMS	Eastern Wake Fire
Fairview Fire	Falls Fire
Fuquay-Varina Fire	Fuquay-Varina Police
Fuquay-Varina Public Works	Garner EMS
Garner Fire	Garner Police
Garner Public Works	Holly Springs EMS
Holly Springs Fire	Hopkins Fire
Knightdale Public Safety	Knightdale Public Works
Morrisville Fire	Morrisville Police
Morrisville Public Works	North Carolina Forestry
Raleigh Fire	Raleigh Police
Raleigh Public Works	Raleigh-Durham Int. Airport
Rolesville Fire	Rolesville Police
Rolesville Public Works	Six Forks EMS
Wake County EMS	Wake County Fire / Rescue
Wake Forest Fire	Wake Forest Police
Wake Forest Public Works	Wake-New Hope Fire
Wendell Fire	Wendell Police
Wendell Public Works	Western Wake Fire
	Zebulon Fire

Our Mission Statement

The Raleigh-Wake Emergency Communications Center is the true first responder to all emergencies. Our mission is to act as a vital and critical link between our public safety agencies and the citizens they protect and serve. We strive to ensure the preservation of life and property by treating all who use our services with professionalism, courtesy, and compassion and by relaying accurate information in a timely and efficient manner.

Dispatch and Call Taking Statistics

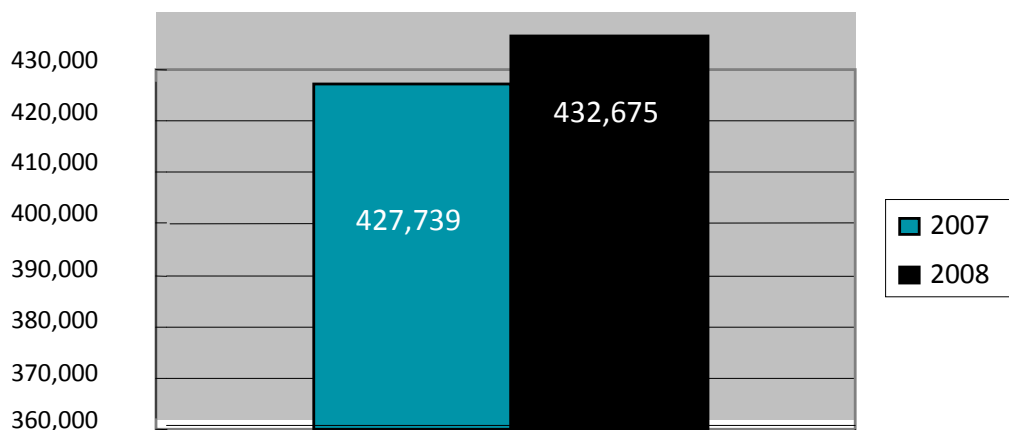


One of the main purposes of any communications center is to serve as an interface between the public and public safety. During 2008, Raleigh-Wake Emergency Communications once again dispatched a record number of calls for assistance, keeping pace with community growth. During 2008, incident numbers increased across the board for all agency classifications—law enforcement, fire, and emergency medical services—that we dispatch.

During the past five years, public safety incidents have increased by more than 18%. Raleigh-Wake Emergency Communications now dispatches an average of 1,155 calls per day, compared to 976 calls per day in 2004.



Annual Dispatch Totals 2007 - 2008



2008

Dispatch and Call Taking Statistics

Public Safety Dispatch Comparisons 2000—2008*

Agency	2000 Dispatches	2008 Dispatches	Increase
County Fire	14,228	25,937	82.3%
EMS	40,449	70,394	74.0%
Raleigh Fire	24,114	34,578	43.4%
Raleigh Police	218,841	249,651	14.1
Municipal Law	39,428	40,848	3.7%
Total	346,044	421,408	21.8%

* Total number of **public safety** dispatches does not count incidents handled for service agencies such as CCBI. These events are reflected in total dispatch figures on page 7.

A careful analysis of both dispatch and call-taking statistics for the Raleigh-Wake Emergency Communications Center provides an overview of the ever increasing workload. While fire and EMS agencies are the fastest growing in terms of annual increases in call volume, law enforcement incidents still make up approximately 69% of the call for service volume. Although slow but steady growth has been the norm for municipal law enforcement statistics, these, too, can be misleading. A reduction in the number of agencies dispatched as well as changes in the way calls are handled by others does not allow for a direct long term comparison of numbers. For example, during the period of 2000 through 2008 examined above, the Wendell Police Department, one of the agencies included in the “Municipal Law” category, more than doubled their number of dispatches. The conversion to 800MHz radio countywide, and the corresponding increase in “talk groups” or channels, has also placed additional demands on ECC staff by creating more frequencies that must be monitored.

In 2008, Raleigh-Wake Telecommunicators made 2,820,823 transmissions on the 800MHz public safety radio system — an average of one about every eleven seconds.

2008

Incoming Telephone Calls Workload

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
9-1-1 Calls Received	467,780	494,305	514,364	516,706
10-Digit Calls Received	333,859	357,104	340,925	308,451
Total Phone Calls	801,639	851,409	855,289	825,157

In 2008, Raleigh Wake Emergency Communications handled over a million total telephone calls, making it the second busiest 9-1-1 center in the state.

Last year telecommunicators made more than 261,000 outgoing calls in support of field units. This represents an increase of 16.3% since 2007.

Non-Emergency Calls Reduced

In 2007, the Raleigh-Wake Emergency Communications Center began an initiative to reduce non-emergency calls. Several steps were taken, including the provision of web-based applications that provide public safety personnel direct access to information formerly gained through phone calls to telecommunicators.

While 9-1-1 calls continue to increase, a reduction of 9.5% in non-emergency calls has been realized.

Emergency Calls Continue to Climb

Although great strides have been made in lowering the burden placed by non-critical calls, obviously no control can be exercised over reports of emergencies. In addition to the increased number of 9-1-1 calls, a unique burden is placed by wireless, non-English speaking, and Emergency Medical Dispatch (EMD) events that take additional time to process.

Since 2005, 9-1-1 calls have increased by 10.5%

For the purpose of analysis, a "call" refers to a telephone call answered by ECC personnel. The terms "dispatch" and "incident" synonymously apply to an event to which public safety personnel are assigned. Since not every telephone call results in a dispatch, and because multiple calls may be received for the same incident, the number of calls in any given year will exceed dispatch totals.

2008

Accreditation—Maintaining High Standards



CALEA

- Raleigh-Wake Emergency Communications is the first and only CALEA accredited 9-1-1 Center in North Carolina, and is one of only 57 centers worldwide to receive this honor.
- Less than one percent of 9-1-1 centers nationwide are accredited.

In November of 2007, the Raleigh-Wake Emergency Communications Center became the first 9-1-1 facility in the state to become accredited by CALEA; the Commission on Accreditation for Law Enforcement Agencies. By so doing we committed to achieving the highest level of standards possible.

For the past year, ECC staff has been heavily involved in preparing for our first re-accreditation due in 2010, and have taken action to meet 80% of those standards declared “optional” in our first review. Additional training and procedures that further bolster our compliance are now also in place.

During 2008, a new edition of communications standards was released that added areas of review including Homeland Security. Director Barry Furey served on the committee that drafted these updated guidelines, and CALEA Accreditation Manager Richard Batchelor has instituted internal processes to ensure that Raleigh-Wake Emergency Communications is in compliance with both new and old regulations.

CALEA Accreditation provides the benefit of a standardized, recognized, independent review that serves as a recognized measure of excellence.

2008

also marked our first complete year as an Accredited Center of Excellence, as recognized by The National Academy of Emergency Medical Dispatch. Raleigh-Wake Emergency telecommunicators helped to deliver 12 babies via pre-arrival instructions over the telephone (including three in one day) and were recognized for their 2007 efforts during a ceremony in May. Judy Capparelli, Quality Improvement Supervisor, assures that all personnel meet or exceed national standards, with center personnel averaging 99.26% compliance based upon more than 4,000 reviews conducted during 2008.



2008

I Knew What to Do—Rewarding Kid Callers

Since 2006, the Raleigh-Wake Emergency Communications Center has provided formal recognition to children aged twelve and under who show initiative, poise, and composure while making emergency calls. More often than not, these calls are made on behalf of an adult family member who is seriously ill. Many of them are truly life-saving.

As part of this unique program, the juvenile callers are presented with a framed certificate and a 9-1-1 goody bag in a public ceremony. These awards are typically bestowed during an assembly at the student's school or, in some cases, at a regular meeting of the Raleigh City Council.

While these heroes in our community may be little, their deeds are certainly big.



Director Barry Furey presents the *I Knew What to Do* Award to Kayley Lancaster while her mother looks on.

During 2008, two new members were added to our growing list of exceptional young people. In May, Kayley Lancaster was honored at Westlake Middle School for her outstanding handling of her mother's serious fall, and in July Mercedes Almazan appeared before the Raleigh City Council, showing the same grown-up presence she displayed on her initial 9-1-1 call.

After her appearance at the council meeting, Mercedes and her family were given a tour of the Raleigh-Wake 9-1-1 center by Telecommunicator II Laura Winkler, the employee who originally handled her call for help.



Telecommunicator II Laura Winkler shares a hug with Mercedes Almazan after Mercedes was honored at a City Council meeting.



2008

The Year In Pictures



"Do My Job"

Training Supervisor Angie Schulz (right) takes a 9-1-1 call while reporter Kim Dean looks on. Raleigh-Wake Emergency Communications was featured in a May WRAL television segment called "Do My Job" where occupations throughout the viewing area were highlighted.

Dispatchers from the Apex Police Department work from the Barwell Road backup 9-1-1 center while their own facility is being upgraded. This marked the first time that an agency other than the ECC or Wake County Sheriff used the alternate site, and this August exercise validated our ability to respond to a wide variety of emergencies.



Apex Police work at Backup Facility



Lifesaving Efforts Rewarded

Alan Sanders, Chris Walton, Mikaela Kelsey, Kris Shear, Jennifer Butler and Joel Mullen were among several ECC, fire, and EMS employees honored on May 21st for their lifesaving efforts the previous year. Raleigh-Wake Emergency Communications was cited for our use of pre-arrival instructions to callers, particularly during childbirth and CPR.

Raleigh-Wake Emergency Communications

2008

Raleigh-Wake Emergency Communications

Members of the Raleigh-Wake Emergency Communications "A" shift all wear red during this February support of Heart Awareness. Raleigh-Wake Emergency Communications personnel are involved in a variety of activities that promote better health and support the community. A more detailed accounting of their involvement is included on page twenty-five of this report.



Wearing Red for the Cause



Jesse Creech is Honored

Supervisor Jesse Creech addresses the North Carolina APCO/NENA joint conference in September at Sea Trails Resort. Jesse was among the first group of inductees entered into the NC NENA Hall of Fame for his continuing work on the Telecommunicator Emergency Response Task Force.

National Telecommunicator's Week is supported in Raleigh by an annual mayoral proclamation each April. A variety of activities, such as this pre-softball game cookout, are organized as a way of saying thanks for the year-round efforts of Raleigh-Wake Emergency Communications employees.



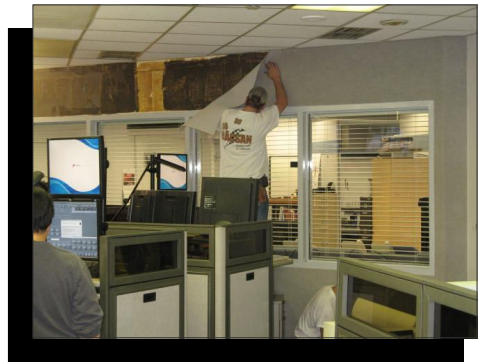
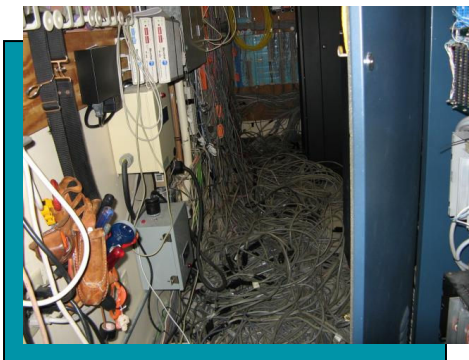
Annual April Cookout

We're there for you every day of the year.

2008**The Year In Pictures (continued)****Backup 9-1-1 Center at Work**

As part of a City mandated requirement, Raleigh-Wake personnel conduct an annual exercise at our Barwell Road backup facility. Raleigh is one of the few cities in North Carolina having a full-scale 9-1-1 center such as this, capable of handling all calls and providing the same level of service as our primary site.

These exercises help to familiarize employees with the procedures needed to seamlessly transfer operations from one facility to another. They also provide an opportunity to perform needed work at the downtown site, which is obviously occupied at all other times. Here workers apply new wall covering after having removed the well used carpet which was previously in place.

**Cleaning up our Vacant home****Removing Years of Old Phone Technology**

During the 2008 exercise a new Voice over Internet Protocol (VoIP) telephone system was installed at the main 9-1-1 center, having already gone live weeks before at the backup. The picture to the left shows just some of the old cabling that had to be carefully sorted out and removed so that our service to our citizens could be modernized.

Barwell Road Exercise and New VoIP Phone System

Telecommunicator Emergency Response

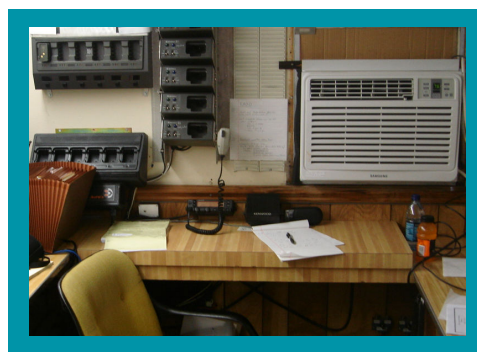


Raleigh-Wake telecommunicators have been involved in every deployment since the inception of the TERT program.

In September 2001, representatives from six Public Safety Answering Points (PSAPs) met to discuss the need for establishing a mutual assistance program for 9-1-1 centers.

Included in these initial discussions were representatives of the Raleigh-Wake Emergency Communications Center. While police and fire departments had long benefited from such agreements, emergency communications centers had no formal means of securing additional personnel during a disaster or crisis. Created from these beginnings was the Telecommunicator Emergency Response Task Force, or TERT, a formalized program that coordinates the response of trained telecommunicators to areas in need of assistance.

The success of the North Carolina program has led it to become a model for other such initiatives nationwide. On a local note, personnel from Raleigh-Wake have been directly involved in every TERT deployment since the inception of the program, including assignments in Louisiana in the wake of Hurricane Katrina, and earlier this year to assist Hyde County in managing wild fires that ravaged that region.



An eighteen-wheeler (left) is all but obscured by smoke as it travels down a highway in Hyde County. Raleigh-Wake telecommunicators helped to staff the command post (right) and provided welcome relief to local emergency services personnel.

Recruiting, Training and Public Education

There is no more important task than training new telecommunicators. The Raleigh-Wake Emergency Communications Center provides a twelve week comprehensive classroom training program to all new hires in advance of their continuing hands-on training on the center floor. In addition to the local curriculum, designed to provide an understanding on the policies and procedures related to our user agencies, recruits also receive nationally recognized certification in Emergency Medical Dispatch, enabling them to provide life saving information over the phone to 9-1-1 callers.

However, the academy itself is actually the end result of a coordinated recruiting, testing, and screening process that lasts several months. As an example, more than 280 people applied for the class that began in October. Out of that, only 13 were hired. A rigorous combination of aptitude tests, psychological examinations, and background checks assures that only the "best of the best" are accepted.



Arel Karathanasis works on her skills during the 38th ECC Training Academy.

In addition to the new hire training and testing, the Training Division, under the direction of Supervisor Angie Schulz is responsible for the continuing education of all current employees, and for all public representations of the center. Raleigh-Wake Emergency Communications has been the perennial favorite of the City's Neighborhood College Program, and every year our staff provides tours of the 9-1-1 center and attends numerous Neighborhood Watch meetings, job fairs, and special events throughout Wake County.



Amanda Davis prepares the Raleigh-Wake Emergency Communications booth at Raleigh Wide Open.

Tours may be booked and literature obtained by contacting Angie Schulz at 919-773-4074 or angie.schulz@ci.raleigh.nc.us.

Training / Personnel (continued)

***Raleigh—Wake
Emergency
Communications was
voted as the “Best
Neighborhood College
Class” for both 2008
City of Raleigh
sessions.***



***Family/personal
reasons along with
other employment
accounted for 54% of
all attrition last year.
Additionally, 44% of
those departing had
six months
experience, or less.***

More than 4,300 hours of training was provided by the ECC training staff during 2008. This covered a variety of topics, and included both practical and theoretical skills. In addition to in-service and continuing education training, two new academies were presented for newly hired personnel.

During the past year, two new components were added to the Hiring/Selection Process. The first was a thirty minute pre-employment session and the second was a self screening questionnaire. The purpose of both implementations was to provide the applicant relevant information about the positions they had applied for so they could make an informed decision on their potential career path.

Additionally, applicants that successfully scored 78% or above on the initial employment test were provided the opportunity to book their own interview dates and times through the Internet. This added function has been quite successful and has received high reviews from applicants. It has also saved countless staff hours by eliminating phone calls formerly used to schedule follow-ups. Candidates now select appointments that meet their schedules without the need for ECC intervention.

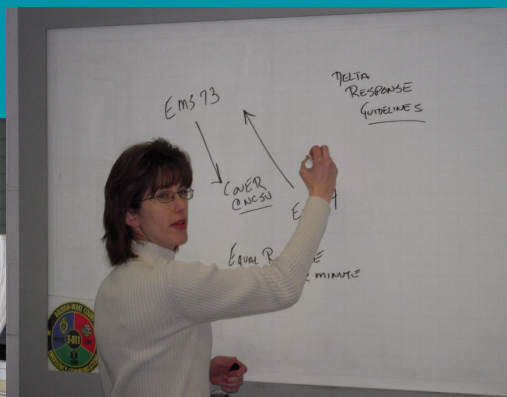
During the second hiring process of 2008, employment testing sessions were also offered at night. Applicants that took advantage of the evening sessions were very appreciative of the ability to test in the evening, which eliminated the need to take time off from their present jobs. All of these initiatives will be carried into 2009, as will an increased focus on staff retention. A significant burden is placed on both operations and training by a more than decade old trend of significant staff turnover and attrition.

Personnel Activity Snapshots

Attention and turnover continues to plague Raleigh-Wake Emergency Communications and other 9-1-1 centers nationwide. Last year, our turnover was average by the five year standard, but significantly less than the previous year. Additionally, there were three retirements during 2008- an unusual occurrence in the past, but one that will impact operations in the future as a segment of our staff begins to mature.

Fiscal Year	Authorized Staffing	Attrition	% Turnover
FY2004	74	13	18%
FY2005	76	15	20%
FY2006	78	13	17%
FY2007	80	21	26%
FY2008	94	18	19%
FY2009 (YTD)	103	12	12%
Average Attrition FY04-09 YTD			19%

We Work for the City



Bill Eagan (left) and Judy Capparelli (above) play key roles in maintaining the readiness of ECC personnel and systems.

During 2008, the City of Raleigh, through the Public Affairs Department, began to highlight employees who provide services of which the public may not be aware through a series entitled "I Work for the City." ECC is proud to have had the opportunity to display the talents of Bill Eagan, who maintains the geographic files that support our Computer Aided Dispatching, and Judy Capparelli, who performs our Emergency Medical Dispatch Quality Assurance. Both individuals play key roles in keeping our center working efficiently.

Honors and Awards

ENP

Emergency Number Professional

The National Emergency Number Association (NENA) awards the certification of Emergency Number Professionals to those individuals who demonstrate their proficiency in and understanding of 9-1-1 technology, management, and supervision.

Raleigh-Wake Emergency Communications is proud to employ more ENPs than any other 9-1-1 center in North Carolina. The following individuals have successfully completed this examination, and are recognized for their efforts:

Richard Batchelor
John Franks
Mikaela Kelsey
Scot Rademacher

Judy Capparelli
Walt Fuller
Robert Miller
Russell Rigouard
Craig Schulz

Jesse Creech
Joye Greene
Kelly Palmer
Angie Schulz

You're Just Ducky!

During 2008, the "You're Just Ducky" awards program was started as a fun way to recognize employees who go the extra mile.

On occasion, the 9-1-1 duck, complete with headset, has also been given to members of other departments as a token of gratitude for their assistance.



"Cheaper by the Dozen"

Raleigh-Wake Telecommunicators helped to deliver 12 babies during 2008 by providing emergency medical instructions over the phone.

TC Joel Irvine accounted for three of these deliveries, including a set of twins, while Mark Ostrander and Kris Shear assisted in two births apiece.



2008

Honors and Awards (continued)



Telecommunicator Marcus Wells, Assistant Supervisor Mikaela Kelsey, Director Barry Furey, and TC Mark Ostrander pose with awards and proclamations presented during Telecommunicators' Week.

During 2008 the ECC employees received several awards for service. We congratulate these deserving employees for their accomplishments.

- Mayor Charles Meeker issued a proclamation for "Telecommunicators' Week" in April during a City Council meeting.
- Telecommunicator Mark Ostrander received the "Rookie of the Year" award.
- Assistant Supervisor Mikaela Kelsey and Telecommunicator Marcus Wells were awarded the "Employee of the Year" award for 2008 by the ECC. Ms. Kelsey was also submitted for the City of Raleigh "Employee of the Year" award where she was selected as a Departmental winner.
- Deputy Director Kelly Palmer was sworn in as First Vice-President of the North Carolina Chapter of the National Emergency Number Association (NENA) at the annual conference in Sunset Beach, NC.
- Training Supervisor Angie Schulz was named Training Coordinator for NC NENA.
- Supervisor Jesse Creech was elected into the North Carolina Chapter of NENA Hall of Fame for his work with the North Carolina TERT team.
- EMD Supervisor Judy Capparelli was elected Secretary for the North Carolina Chapter of APCO (Associated Public Safety Officials).
- Accreditation Manager Richard Batchelor was elected as the Region "B" Ambassador for the North Carolina Chapter of APCO.
- Director Barry Furey was appointed as the Legislative Committee Chairman for the North Carolina Chapter of APCO.

Quality Assurance and Feedback Analysis



2008 Emergency Medical Dispatch (EMD) Scores

"A" shift	99.35%
"B" shift	99.33%
"C" shift	99.15%
"D" shift	98.98%
ECC Average	99.26%

The Raleigh-Wake Emergency Communications Center is committed to providing the best service possible to our community. As such, independent reviews are regularly conducted of randomly selected calls to ensure compliance with protocols and professional demeanor. Last year (2008), more than 4,000 emergency medical incidents alone were analyzed and scored based upon pre-established guidelines.

The text box to the left shows a shift-by-shift breakdown of the monitoring and grading of a variety of components including provision of pre-arrival instructions, case entry, and appropriate diagnosis.

With the authorization of an information technology position in 2008, additional staff time has been freed to provide for even more detailed quality assurance in the future.

Community Satisfaction Survey

In order to better gauge our service to the public, the Raleigh-Wake Emergency Communications Center makes available a web-based tool whereby citizen callers can leave input or ask questions regarding their experiences in reporting an emergency.

During 2008, we received a total of 68 responses. Of these:

- 27 called for law enforcement assistance
- 20 called to request an ambulance
- 16 called to report a fire
- 42 rated their services as "excellent"
- 20 rated it "good"
- 2 rated service as "satisfactory"
- Only 2 described it as "poor"

2008

Quality Assurance and Feedback Analysis

Every year the Raleigh-Wake Emergency Communications Center performs a detailed analysis of formal feedback provided by the public, and by user agencies. Independent of web-based comments, this feedback consists of letters, emails, and telephone calls made directly to the center administration concerning the handling of calls. This feedback is broken down into three categories; *commendations* which consist of formal compliments to service staff—*complaints*, which deal with alleged errors or rudeness—and *inquiries* designed to provide additional information regarding an incident. If at any time during the provision of this information, potential errors or misconduct on the part of the Emergency Communications Center or staff is discovered, the incident is reclassified as a complaint.

Feedback Comparison

	<u>2007</u>	<u>2008</u>
Total formal feedbacks	109	63
Commendations	24	17
Inquiries	21	11
Citizen complaints	22	18
User complaints	39	17
Total complaints	61	35
Valid complaints	31	15
Unfounded complaints	13	8
Exonerated by investigation	17	12

Statistically speaking, there was negligible difference in the rate of complaints between day and night shifts. Sunday and Monday were the most active days for feedback. Of note is the fact that the number of valid complaints was reduced by more than 50%, and the rate of valid complaints per 100,000 was cut in half when compared to 2007.

Between 2007 and 2008, the number of valid complaints was reduced from 31 to 15, and the rate of valid complaints per 100,000 telephone calls dropped from 3.62 to 1.81—an improvement of 50%.

2008

Technical Services Division - GIS

The Technical Services Division has three distinct functions, Systems Administration, GIS (Geographic Information Services), and RF (Radio Frequency) Services. Systems Administration makes up the support and maintenance of the Public Safety Applications, Hardware, and Networking. GIS Services is responsible for the mapping data needed by Computer-Aided Dispatch and PSAP phone systems. RF Services includes the Communications Electronics Maintenance team which is responsible for procurement, installation and maintenance of both Public Safety and non-Public Safety radio equipment and infrastructure.

Because of the large number of systems maintained, two additional staff positions were approved during 2008: one to assist with the maintenance of 9-1-1 and Computer Aided Dispatch (CAD) records, and the other—deferred to calendar 2009—to provide direct technical support to other hardware and software.



Raleigh-Wake Technical Services Support Team. Standing: Matt Boyd, Glenn Lamb and Supervisor Craig Schulz. Front: Dustin Winkler and Bill Eagan.



Telecommunicator Jessica Davis sits beneath a wall mounted Automatic Vehicle Location (AVL) map display; one of many technical upgrades made during 2008.

2008 Highlights

- Brought Automatic Vehicle Location System (AVL) online, allowing for the recommendation of the closest ambulance to all emergencies countywide.
- Developed web-based quality assurance programs allowing credentialed employees to enter and maintain records.
- Upgraded entire 9-1-1 telephone systems, at both primary and backup locations to Voice over Internet Protocol (VoIP) devices.
- Rolled-out In-Vehicle Navigation (IVN) service to provide real-time directions to first responders.

Communications Electronics Maintenance Shop

2008 Highlights Continued

- Upgraded in-house network to improve speed and reliability.
- Created "key coverage" maps for EMS to assist in properly distributing available ambulance resources.
- Added out-of-county streets to database to provide better information on incidents close to the Wake County borders.
- Moved forward with virtualization of servers for more efficient and cost effective operations.
- Improved online resources for ECC personnel by expanding available electronic files and services.
- Reviewed more than 530 plats within the City of Raleigh.
- Added 129 new streets to the Computer Aided Dispatch geographic file.
- Successfully completed the transition of all City of Raleigh public safety agencies to 800 MHz.
- Began work on a citywide radio system for non-public safety departments.



Matt Boyd and Craig Schulz work to support the transfer of operations to the backup 9-1-1 center.

The City of Raleigh Communications Electronics Maintenance Shop (CEMS), formerly known as the "Radio Shop" underwent great change during 2008. Bill Passerino assumed responsibility for supervision, and additional training was provided to personnel in order to reduce reliance upon outside contractors. One of the more ambitious projects involved the "recycling" of radios turned in by the Raleigh Police Department. More than 1,000 devices were inventoried, with the most viable units being reprogrammed in preparation of redistribution to other City of Raleigh departments as part of an upcoming consolidated radio system project.



Brian Barker, Supervisor Bill Passerino and Dan Krenzke are part of the Communications Electronics and Maintenance Shop team.

Giving Back to the Community

While relatively small compared to many City of Raleigh Departments, the Emergency Communications Center and our Communications Electronics Maintenance Shop make a big impression when it comes to giving back to others. Although, to some degree, this is accomplished through the nature of our business, there are numerous outside activities performed individually or as an organization throughout the course of the year. Several ECC employees are active members of local fire departments and rescue squads, while others support local community groups. Here is a list of some of the more formal activities undertaken during 2008:



United Way

- **More than thirteen hundred pounds of food and over \$150 dollars were donated by employees to the Food Bank of Central and Eastern North Carolina in an effort to ease hunger in our region. This eclipsed last year's effort.**
- **Through APCO, an international communications organization, ECC "adopted" the family of a telecommunicator from Texas that lost all their possessions in a hurricane. A total of \$1,000 in goods and gift cards were collected as our way of saying "Merry Christmas."**
- **ECC employees also "adopted" a highway during 2008, beginning the quarterly commitment to collecting roadside trash on Barwell Road. Their first effort netted 48 full bags of litter.**
- **During the holidays, staff collected and assembled sixty overnight bags for the Raleigh Rescue Mission that provided basic toiletry and hygiene items for residents.**
- **Support continued for charities such as the United Way. In 2008, ECC received the City of Raleigh Lead Pacesetter Award for increasing our contributions by 82% over 2007.**

2008

Environmental Initiatives



***Helping to create
the most sustainable city
in the southeast.***

While a 9-1-1 center is not normally considered as having a significant environmental impact, Raleigh-Wake Emergency Communications, along with all other City of Raleigh Departments is constantly seeking ways to lessen our environmental footprint. Several administrative staff members make good use of the Telework program, increasing productivity while reducing downtown traffic. Obviously, the nature of emergency services requires that our facility be staffed 24 hours a day, so this option is not available to those who answer the telephones and radios. We have, however, instituted policies and installed technologies in keeping with good practices. During 2008, Automatic Vehicle Location and In-Vehicle Navigation were rolled out, thereby reducing the number of miles travelled by ambulances throughout Wake County through the guaranteed dispatch of the closest available unit. Work continued with the Raleigh Police Department, as well, to better define those calls that can be handled by telephone, without the need for the dispatch of an officer.

Steps were also taken within our facilities to better manage resources. More efficient lighting was procured for the Communications Electronic Maintenance Shop, and a significant amount of procedures, tests, and support materials were brought on-line, drastically reducing our dependence upon paper. Included here is the provision of ECC public education materials on the City of Raleigh website so that citizens may print those required on demand, or save and read them in a Protected Document Format (PDF). In keeping with this practice, this annual report is only being distributed in electronic format; no print copies have been made.

In 2008, conversion to “virtual” servers began, as part of an ongoing sustainability strategy. Combining the functions of several computers into a single device lowers costs as well as electrical and cooling demands; all critical benefits in an around-the-clock operation. Language was also added to an RFP that requested vendors to detail their environmental initiatives as part of their response. Perhaps the most important undertaking was the time spent planning for the Clarence E. Lightner Public Safety Center, which will assure that our sustainability efforts are truly “sustained” for years to come.

Clarence E. Lightner Public Safety Center



The Raleigh-Wake Emergency Communications Center is currently in the planning mode for our new home; the Clarence E. Lightner Public Safety Center. While the physical move is still several years away, staff has already committed hundreds of hours to planning and research to ensure that the final design embodies the best practices of security, functionality, and environmental awareness.

The challenge to ECC—and for the entire project for that matter—is to create a welcoming and open environment while still providing for enhanced levels of security demanded by our times. Working in conjunction with other city agencies and the architectural design team, we believe that we are well on our way to making this goal a reality.

The Clarence E. Lightner facility will provide an opportunity to design for the future needs and safety of all of our citizens. And, since the ECC also serves Wake County and many other towns, the impact of these benefits reach far beyond the City of Raleigh's borders.

Because an environmentally friendly building is also “user friendly,” employees will benefit from this modern, intelligent design. The use of natural light throughout will serve to release the stress associated with this fast-paced occupation while at the same time serving to reduce energy costs.

Raleigh-Wake Emergency Communications Quick Reference Fact Sheet

Agency:	Raleigh-Wake Emergency Communications
Address:	PO Box 590, Raleigh, NC 27602
Agency Head:	Barry Furey, Director
Telephone:	919-996-3530
Fax:	919-831-6859
Email:	barry.furey@ci.raleigh.nc.us
Agency Founded:	January 28, 1972
Services:	Emergency and non-emergency dispatching for the City of Raleigh and the majority of communities within Wake County; 9-1-1 PSAP (Public Safety Answering Point). Also provides technical services and communications support through the Communications Electronics Maintenance Shop.
Agencies Served:	45
Population Served:	868,121 (2008 estimate)
Employees:	103 total, all activities and positions
Budget:	\$8,886,139 FY '08-'09
Funding Sources:	City of Raleigh; member communities of WECO (Wake Emergency Communications Organization) on a per-call rated basis; North Carolina State 9-1-1 Fund.
Incoming Calls:	825,157 per year
Outgoing Calls:	261,298 per year
Total Dispatches:	432,675 per year
Radio Calls:	2,820,823 per year
Certifications:	Accredited since 2007 by the Commission on Accreditation for Law Enforcement Agencies (CALEA). Accredited Center of Excellence (ACE) since 2007 by the National Academy of Emergency Medical Dispatch.



This page intentionally left blank.